# Motivation to Fly and Aviator Characteristics

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# Introduction

- To understand how aviators function - it is useful to consider what motivates them to fly
- When evaluating a “failing” aviator - the flight surgeon should consider:

  1) if his personality matches that of the successful aviator,

  2) if he has a healthy motivation to fly

# Past Behavior Predicts Success in Aviation

- Good impulse control (e.g., absence of MVAs, traffic violations, delinquent behavior, starting fights)
- “Track record” of accomplishments
- Healthy stress coping skills (successfully handled significant life events and milestones)
- Group participation (relationship skills)
- Leadership skills

# Healthy Motivation to Fly

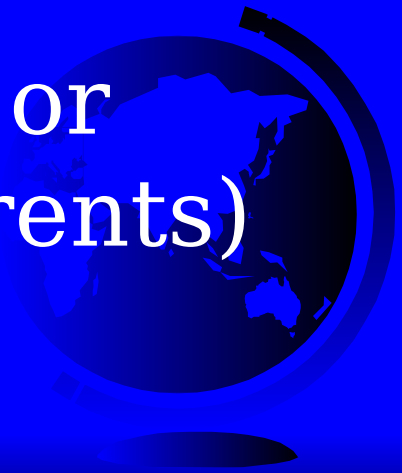
- Typically began in childhood
- Involves a counterphobic urge - as one must learn to enjoy an innately terrifying activity
- Ability to recognize the real dangers of flying and the realistic demands of flight training
- Ability to transform the aggressive (and sexual?) drives into calculated risk-taking

# Historical Clues to Healthy Motivation to Fly

- Long-standing desire to fly
- Participation in aviation-related activities (airshows, airplane models, flying lessons)
- Aviator role model (relative or friend)
- Enjoyment of (and safe participation in) risky hobbies (sky diving, rock climbing, scuba diving, mosh pits)

# Healthy Motivation to Fly (cont.)

- Never contemplated a non-aviation career
- Accepts implications of combat flying (e.g., being killed, killing enemy and civilians)
- Supportive family (spouse or “significant other” and parents)



# Clues to Unhealthy Motivation to Fly

- Impulsive decision to escape family, relationship, or other problems
- Selecting aviation in response to parental pressure (ex. father is retired combat pilot)
- Need to compete with and “one up” a domineering parent
- Selecting aviation to prove “I’m macho” and overcome low self-esteem/inferiority
- Immature wish be an aviator (“Topgun wannabee”), instead of fly … anything

# Reinhart's Stages in the Aviator's Life

- Glamorous years 22-24 yrs.
- Years of increasing caution 24-28 yrs.
- Controlled fear of flying 30-38 yrs.
- Safe years 38+ yrs.

# Motivation to Fly Evolves with Aging

- Young/student aviator:
  - total preoccupation with thrill of flying
  - denial about the dangers of flying (daring)
- Older aviator:
  - more diverse interests (ex., family)
  - recognizes danger (witnessed or experienced mishaps. ejection, death of aviator friends)

# Motivation Evolves (cont.)

- Seasoned aviator:
  - proud of his/her flying skill and experience
  - more cautious
  - competing interests (military career, family, preparation for civilian career)

# Adaptive Defenses in the Healthy Aviator

- Affiliation
- Humor (may border on “sick” humor)
- Sublimation (channel aggressive drive into socially acceptable outlet, like sports)
- Compartmentalization (e.g., suppresses anger about marital strife while flying)
- Suppression (of fear of flying)

# Defenses (cont.)

- Denial (“I never think about crashing”)
- Rationalization (“Flying is less dangerous than driving.  There are NATOPS procedures, checkrides, emergency procedures, ejection seats, parachutes,…”)
- Magical thinking (“I will never have an accident.”)

# Evolution of Aviator Personality Traits

- W.W.I/W.W.II aviators:
- Few selection criteria
- Stereotypical macho, aggressive, impulsive thrill-seekers (“Topgun” image)
- Courageous or foolhardy? - aerial combat, bombing, and strafing done within eyesight of the enemy
- Spawned colorful legends

# Successful Modern Aviator - Characteristics

- Above-average intelligence (USN - 116; USAF - 123)
- Supportive parents
- Calculated risk-taker (accident free) … yet..
- Compulsive (obeys NATOPS, checklists)
- Thinks quickly in emergency and novel situations
- Strong need for control
- Independent (but a team player)

# Successful Aviator Characteristics (cont.)

- Big ego (“healthy narcissism”); confident
- Absence of Axis I or Axis II diagnoses
- Achievement-driven/action-oriented
- Avoids introspection (so may “act out” when stressed; externalizes personal probs.)
- Emotionally reserved (isolates affect; makes friends easily but likes interpersonal distance; uses rational problem-solving)
- Able to selectively attend to certain inputs

# Classic Aviator Personality Studies

- CAPT Richard Reinhart (1979) - “Outstanding Jet Aviator”
- Study of 105 fighter pilots - in the top 10% of their peer group (all males)
- 67% first born (but so are many successful people)
- Strong parental influence:
  - intense, strong identification with father
  - stable, supportive mother

# USAF “Right Stuff” Study

- Retzlaff and Gibertini (1989)
- Group I - “Right Stuff”:
  - dominant
  - aggressive
  - impulsive
  - playful
- Group II - “OK Stuff”:
  - less driven
  - stable
  - compulsive
  - less joy in flying
- Group III-“Wrong Stuff”:
  - passive
  - cautious
  - conforming
  - less joy in flying

# NEO-PI-R (Personality Inventory)

- Normed for civilian airline pilots and Naval and Marine Corps aviators
- Five major scales:
  - Neuroticism (low) - generalized anxiety
  - Extroversion (high)
  - Openness (to new experience) - flexible
  - Agreeableness
  - Conscientiousness (high) - does it right
  - Impulsiveness (low)

# Personality Test Results

- Personality testing of successful aviators -reveals similar profiles for men and women

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